

**Notice of Allowability**

Application No.

09/674,254

Examiner

Ginny Portner

Applicant(s)

TABIBZADEH, SIAMAK

Art Unit

1645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/8/06.
2. ☒ The allowed claim(s) is/are 70,79; now claims 1-2.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☒ Other See Continuation Sheet.

  
**MARK NAVARRO**  
**PRIMARY EXAMINER**

Continuation of Attachment(s) 9. Other: copy of p 20 with SEQ ID NO inserted line 32.

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Examiner's Amendment

Please see attached page 20 with hand written insertion of SEQ ID NO 3 at line 32.

BP

of infertile patients, the ebaf mRNA was detectable in the endometria of women on the post-ovulatory days 6-10 (Figure 2). The mRNA detected was primarily the 2.1 kb species. Additional smaller bands were also detected in a smaller number of patients (Figure 2). A high incidence of dysregulated ebaf mRNA expression, however, was identified in women with endometriosis and with unexplained infertility (Table 3, Figure 2).

In contrast, endometrium obtained from a normal fertile woman (egg donor) during the implantation window, exhibited a low level of ebaf mRNA expression (Figure 2, lane 21).

To localize ebaf protein in endometrial samples and samples of bodily fluids for similar purposes, the invention provides methods whereby polyclonal antisera is raised against ebaf or a synthetic peptide provided by the invention, CASDGALVPRRLQHRP-amide (SEQ ID NO:3). The antisera preferably are pooled and affinity purified on a column with the peptide bound. Similarly monoclonal antibodies could be used as is well known in the art.

Various forms of ebaf protein in endometrial samples, endometrial fluid and serum during the menstrual cycle can be detected. The size of the ebaf precursor protein is 41 kD. However, ebaf protein contains three RXXR cleavage sites which conform to the minimal requirement for efficient processing by Furin, a ubiquitous prototypical mammalian kexin/subtilisin-like endoproteinase involved in the proteolytic processing of a variety of proteins including those within the ebaf super family. If all these sites are cleaved, then products of the molecular weights of 32.3, 25.7 and 12 kD proteins are expected to be secreted (Table 2). To detect such proteins in endometrial samples, fluids and serum the CASDGALVPRRLQHRP-amide (SEQ ID NO:3) antisera is used. In endometrial samples the antisera detects ebaf bands at 55/60, 41, 31, 25 kD by Western blot